

SPECIAL REPORTS

The Secret Battery Set to Drive the Multi-Trillion-Dollar Internet of Things Industry

By Luke Lango July 22, 2021

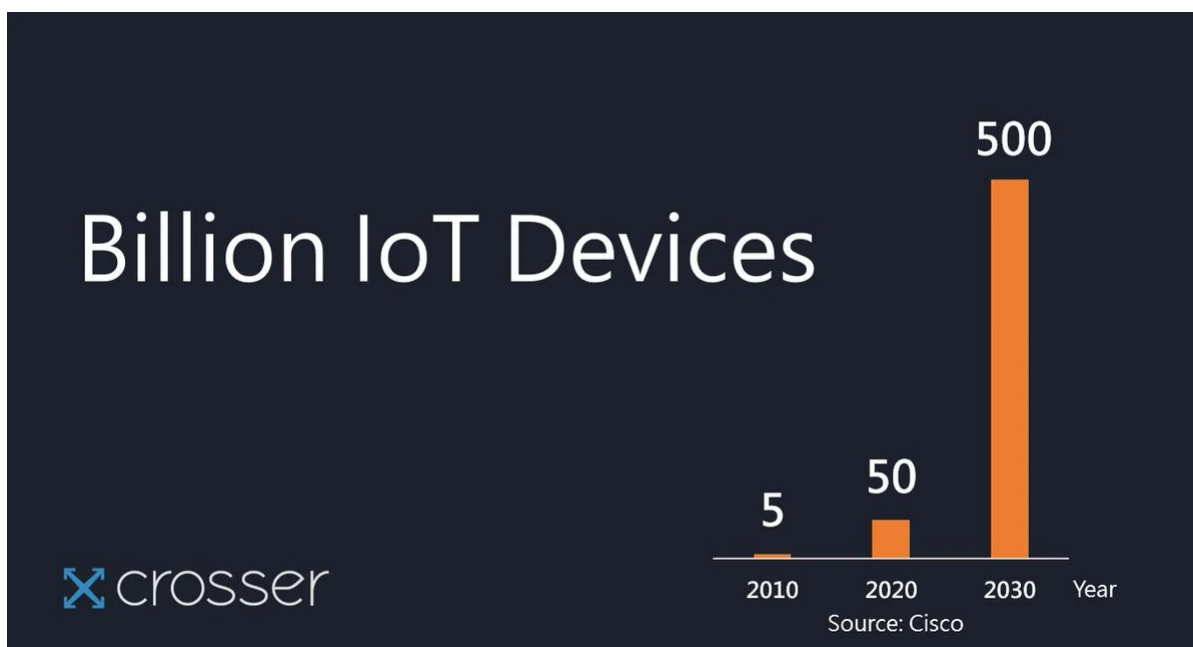
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I spend a lot of time thinking about the future.

We live in an especially exciting time. Advancements are changing our lives, our world, and our wealth. Industries are being transformed.

Not long from now, nearly everything around us will be connected to the internet – receiving, collecting, storing, and transmitting data. This industry is called the Internet of Things, or IoT for short. It's one of the defining technological trends of our age.



According to networking giant Cisco, 500 billion devices will be connected to the internet by 2030. This includes cars, phones, computers, watches, medical devices, ATMs, airplanes, security systems, refrigerators, homes... the list goes on and on.

The future of technology is all about connecting devices to enhance the user experience. That's why the IoT is one of the most exciting growth trends out there right now.

In just a few short years, your daily routine will look something like this:

Your smartwatch buzzes to wake you up once optimal sleep has been achieved. It lets you know that your vital signs all look good – it monitors your blood pressure, pulse, sleep stats, and more – and sends them off to your doctor's database for preventative measures. Finally, that same smartwatch notifies your coffee machine to turn on and start preparing a warm cup of joe for your morning commute.

As you get ready to leave the house, the refrigerator beeps to alert you that you are running low on eggs and milk. It sends a reminder to both your phone and car so you won't forget to stop at the store before returning home.

Your commute is made nice and smooth by a variety of things. First, your car drives itself, so you can focus on other things like your to-do list, which your car has synced with your work computer. You can even pay your mortgage by linking up to the auto's 5G-powered Wi-Fi connection. Then there are the smart roads, which have chips embedded in them that help control traffic via connected lights.

When you get to work, your autonomous vehicle drops you off and leaves to find a place to park until you are ready to head home. While doing so, it sends a signal to the control device in your office that turns on the lights, sets the temperature, and opens your email. Everything is ready the moment you sit down.

That's just the first 90 minutes of how a connected day will look in a few years!

Will it make your life easier? There's no question.

The Internet of Things is one of the biggest and most transformational trends of our time... a trend that will create hundreds of billions of dollars in new wealth. In fact,

Fortune Business Insights predicts the IoT market will grow to \$1.46 trillion by 2027, up nearly 500% from the \$250 billion it was worth in 2019.

That's an opportunity we want to be a part of, and in this special report I'll explain why one of the best ways to profit from the booming IoT trend is by investing in the under-the-radar technology that powers it.

Solid State and the IoT – A Perfect Match

Nearly everything I described above will require two specific things in order to connect and function properly. One is 5G wireless connectivity, which you can read about in [“The 5G Chip That Will Spark a \\$53 Trillion Revolution.”](#) The other is batteries. Specifically ones that are compact, have a long life, can hold up in high temperatures, and are able to operate in volatile situations.

The IoT industry currently uses lithium-ion batteries, but these kinds of batteries come with dangerous risks.

That's where the solid state battery comes into play.

The solid state battery is the answer to every concern related to the future of the IoT. According to Ilika, a developer of these batteries, the lifespan of a typical iPhone's battery could increase from an average of two years to 10 years.

One of the most important devices in the world of IoT is the smartphone. You probably have one sitting within arm's length. Samsung, the global leader of smartphones, has already begun working on solid state batteries.

And when the world's largest manufacturer of smartphones is concentrating on a future technology, it cannot be ignored.

That may be a little optimistic, but when the world's largest manufacturer of smartphones is concentrating on a future technology, it cannot be ignored.

Samsung and other smartphone makers are investing billions into battery research, and I'm not surprised. According to surveys, consumers view battery life as the single most important feature. In the years ahead, smartphone batteries will need to last several days – if not weeks – and that is only possible with solid state battery technology.

Battery safety was another important feature for consumers. Lithium-ion batteries are like ticking time bombs. If exposed to too much heat or even water, they could explode. This risk will be eliminated with solid state batteries.

It has not been confirmed whether Apple is currently working on a solid state battery technology for its smartphones and wearables. But I do know that Apple has received patents for batteries using a new type of fuel cell. So if I have to make an educated guess, I believe Apple is very quietly working on solid state batteries.

I bring up Apple because I am a huge fan of the Apple Watch. Each new generation of the watch has been even more impressive than the last. In a few years, I expect it will be a medical wonder product. Its ability to track several key bodily functions will make it a must-have for everyone.

But the only way the Apple Watch can move to the next level is through better battery life. Today, my watch only lasts about 24 hours. I could probably stretch it to two days if I barely used it, but then what's the point? The latest watch features a display that's on at all times, though it dims to help preserve battery life. Even so, Apple says the Series 6 watch gets 18 hours per charge. That's not enough. In the future, the Apple Watch needs to be able to last at least a week and handle more volatile functions. These are all things a solid state battery would address.

Speaking of, wearables are another important aspect of the IoT today, and they'll be even more important in the future. This includes everything from watches to fitness trackers... plus anything with the word "smart" added to it! "Smart" is simply in reference to the next generation of something. For example, smart clothing will help control body temperature, track heart rhythm, and transmit data to related devices.

Two more of my favorite technological innovations for the next decade fall under the wearables category – virtual reality (VR) and augmented reality (AR). These are some of the fastest-growing industries right now, and they will also be in need of new battery

technology. By 2025, it is expected that the global market for AR and VR will be north of \$160 billion. In the coming decade, I expect all related devices will require solid state batteries to keep up with the more complex systems and need for battery power.

An oft-overlooked niche subsector of the wearables sector is medical devices. From pumps that are used for diabetes patients to the future of cardio health, solid state batteries will be a major improvement over the current energy sources. A longer battery life, safer materials, and the ability to run more complex functions are all major benefits to the healthcare industry.

And that leads us to our solid state battery stock recommendation. Although still in its early stage, this companies will allow us to profit big-time from the battery boom in the IoT and wearables.

Murata Manufacturing (MRAAY)

Murata Manufacturing (MRAAY) is a Japanese company that was founded in 1944. It manufactures and sells electronic components around the world, and its products can be found in everything from smartphones to home appliances to healthcare and automotive devices.

I really like this company for two reasons: its solid financial standing and the huge upside potential in its solid state battery technology.

Murata's initial focus will be a better, safer battery. That's why the plan is to use the first solid state batteries in wearables. Safety is of the utmost importance in that industry.

Interestingly, the company appears to be focused solely on connected devices and the IoT. It even went so far as to state that it is not interested in car batteries. Murata believes that when a technology emerges as the clear winner, there will still be enough upside to enter the industry.

That may be true, and I continue to follow progress in car batteries closely. But right now, Murata is looking to make its mark in the IoT world. I applaud companies that have clear visions and don't spread too thin. This is a rare yet successful business model.

Murata began its venture into the battery business in September 2017 when it purchased related assets from Sony for 17.5 billion yen (\$154.8 million). Prior to the acquisition, Murata's battery division was a very small part of the overall business. The goal is to take the money-losing battery division and turn it into a main focus over the long term.

That's lofty. But if Murata can be one of the first to commercialize a solid state battery for devices, it could well exceed its target. In fact, it is expected to release a small solid state battery for use in smartphones and wearables in the first half of 2021.

About half of the battery revenue came from smartphones in 2017, and the company expects that ratio to remain constant. In order for that to happen, other business divisions (such as wearables) must also see a big sales boost in the coming years. The combination of replacing batteries in smartphones and the explosive growth in the wearables and IoT markets has Murata sitting in a very enviable position.

The Financials

Murata saw its sales figures decrease in fiscal 2019, but the results still came in better than forecasts. Net sales fell 2.6% year-over-year due to changes in production and inventory. And operating income was down 5.1% on lower factory operating rates and product price declines.

Things are expected to stay rocky in fiscal 2020 (which ends in March 2021) due to the COVID-19 pandemic, but with the planned release of its small solid state battery early this year Murata expects to nearly double its earnings over the next five years.

In the middle of 2018, Murata listed objectives that it termed the "Mid-term Direction 2018." It may not be the most scintillating title, but I like that the growth strategy is predicated on three things:

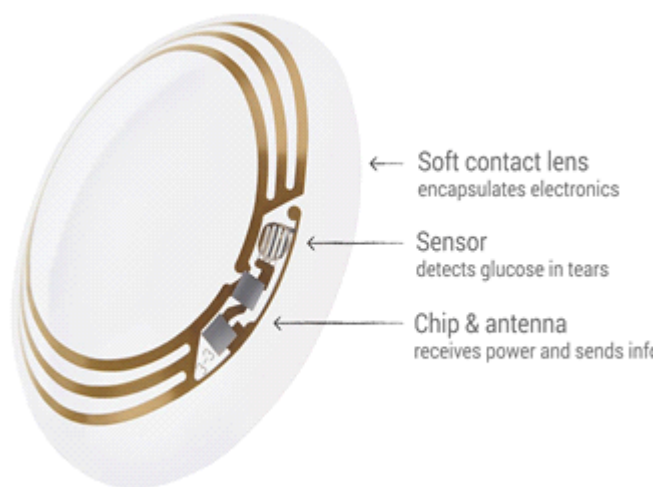
1. Expand competitive edge in communications market
2. Expand into the energy and healthcare sectors
3. Focus on the IoT industry

The fact that half of the company's revenue is derived from smartphone products means that it has already expanded its reach in communications. And Murata is well positioned to profit from the boom in the IoT.

But the one area that is often overlooked in the world of IoT is healthcare. Murata is currently developing an ultra-thin 50-micron version of a solid state battery that could be used in the wearables market. The new product is a candidate to be included in future smart contact lenses.

Yes, even contact lenses will be "smart" in the future. Believe it or not, the smart contact lens market is expected to reach \$10.8 billion by 2025. The lens will be used mainly for patients who suffer from diabetes. Unfortunately, that's a big number. The World Health Organization predicts there will be 422 million people around the globe suffering from diabetes by 2025. That is four times higher than the number in 1980.

Smart contact lenses have been under development for a few years now by big-name firms such as Microsoft and Alphabet. It will use tears naturally produced by the eyes to measure glucose levels. Considering diabetes patients continually have to prick their fingers to check their sugar, this would be a big leap forward in medical technology.



The Opportunity

Murata may not be a household name in the United States, but it has been in business for more than 70 years and is a key player in its space.

This company came onto my radar because of the work it is doing with solid state batteries. I recommended it here in *Investment Opportunities* based on that and so

much more.

The forward-thinking leadership of Murata combined with a solid, established business in the smartphone industry gives the company a good base to build from.

All Murata needs is one of its battery technologies to become a major player in the IoT industry. After that, the sky is the limit.

Buy MRAAY stock up to \$24.

Summing Up

I hope you are starting to get excited about the opportunities that lie within the IoT world – specifically in regard to solid state batteries! This next generation of technology will remove all of the potentially dangerous risks associated with owning and using connected devices. And let's be honest... people will use these devices regardless!

There is big money to be made in this space. So please, don't wait!

